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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,895	01/17/2002	Hirokazu Yamagata	SEL 298	7909

7590

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EXAMINER

GEYER, SCOTT B

ART UNIT

PAPER NUMBER

2829

DATE MAILED: 04/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/051,895

Applicant(s)

YAMAGATA ET AL.

Examiner

Scott B. Geyer

Art Unit

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-37 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)

## **DETAILED ACTION**

### ***Election/Restrictions***

This application contains claims directed to the following patentably distinct species of the claimed invention. Applicant is required to choose one from each of the groups following for prosecution:

**A. Method of forming a light emitting device:**

1. Without introducing an impurity element (i.e. without doping).
2. With the introduction of an impurity element (i.e. with doping).

**B. Flattening treatment:**

1. performed after anodes are formed (from embodiment outlined on page 12, line 14 et seq.).
2. performed after formation of transparent conductive film (anode) and before patterning of electrodes (from embodiment outlined on page 14, line 10 et seq.).
3. performed after formation of anodes and after formation of organic resin material on anodes (from embodiment outlined on page 15, line 27 et seq.).

**C. Insulating film (page 11, line 19 et seq.):**

1. mono-layer.
2. laminated film.

**D. Insulating film material (page 11, line 19 et seq.):**

1. inorganic material containing silicon (silicon oxide, silicon nitride, silicon oxide nitride, silicon nitride oxide).

2. inorganic material containing aluminum (aluminum nitride, aluminum nitride oxide, aluminum oxide nitride).

**E. Electrically conductive metal film application (page 12, lines 3-4):**

1. applied by sputtering.
2. applied by vacuum.

**F. Electrically conductive metal film material (page 12, lines 5-6):**

1. aluminum or titanium.
2. alloy of aluminum and titanium.

**G. Transparent conductive film (i.e. anode) material (page 12, lines 8-10):**

1. indium tin oxide (ITO) mixed with 2-20% of zinc oxide (ZnO).
2. indium oxide mixed with 2-20% zinc oxide (ZnO).

**H. Cleaning liquid composition (page 12, lines 28-30 to page 13, lines 1-3):**

1. pure water.
2. neutral detergents.
3. aqueous solutions containing slightly acidic chemical agents.
4. aqueous solutions containing slightly basic chemical agents.
5. polar solvents.
6. non-polar solvents.

**J. Conductive film (cathode):**

1. MgAg film
2. Al-Li alloy film

3. film formed by co-evaporation of an element belonging to the 1 or 2 group in the periodic table and aluminum.

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An example of a properly elected species would be as follows: A method of forming a light emitting device without introducing an impurity element, wherein the flattening treatment is performed after formation of transparent conductive film (anode) and before patterning of electrodes, wherein the insulating layer is a mono-layer, wherein the insulating film material is an inorganic material containing aluminum (aluminum nitride, aluminum nitride oxide, aluminum oxide nitride), where in the electrically conductive metal film is applied by sputtering and is either aluminum or titanium, the transparent conductive film (i.e. anode) material is indium tin oxide (ITO) mixed with 2-20% of zinc oxide (ZnO), wherein the cleaning liquid is polar solvents and the conductive film (cathode) is an Al-Li alloy film.

This example would be classified as A1 / B2 / C1 / D2 / E1 / F1 / G1 / H5 / J2.

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Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, none of the claims are generic.

Applicant is advised that a **reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon** (emphasis added), including any claims

subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

A telephone call was not made to the applicant's representative due to the complexity of the restriction requirement.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim

Application/Control Number: 10/051,895  
Art Unit: 2829

Page 6

remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).


***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott B. Geyer whose telephone number is (703) 306-5866. The examiner can normally be reached on weekdays, between 10:00am - 6:30pm. The examiner may also be reached via e-mail: [scott.geyer@uspto.gov](mailto:scott.geyer@uspto.gov)

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on (703) 308-1233. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

SBG  
April 2, 2003

  
**KAMAND CUNEO**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2800**